

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicants thank the Examiner for carefully considering this application and for indicating that the drawings filed on November 14, 2003 are accepted.

Disposition of Claims

Claims 1-20 were pending in the present patent application. Claims 9, 10 and 18 have been canceled by way of this reply without prejudice or disclaimer. Accordingly, claims 1-8, 11-17, and 19-20 are now pending. Claims 1 and 13 are independent. The remaining claims depend, either directly or indirectly, from claims 1 and 13.

Claim Amendments

Independent claim 1 is hereby amended to include limitations of cancelled claims 9 and 10 and to address antecedent basis issues. Independent claim 13 is amended to include the limitations of cancelled claim 18. No new matter is added by way of these amendments, and no new search should be required, as the amendments are merely a formality to incorporate previously examined limitations into independent claims 1 and 13.

Double Patenting Rejection

Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 1-16 of co-pending U.S. Patent Application No. 10/713,409. A terminal disclaimer in compliance with 37 CFR § 1.321(c) is filed with this

response based on common ownership of the co-pending application and the instant application. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-20 stand rejected under 35 U.S.C. § 102 as being anticipated by Tamches, “Fine-Grained Dynamic Instrumentation of Commodity Operating System Kernels”, University of Wisconsin, 2001 (Tamches). Claims 9, 10 and 18 have been cancelled by this reply. Accordingly, this rejection is now moot with respect to the cancelled claims. To the extent that this rejection may still apply to the amended and original claims, the rejection is respectfully traversed.

“A claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (emphasis added). Further, “[t]he identical invention must be shown in as complete detail as is contained in the claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The Applicants respectfully assert that Tamches does not expressly or inherently describe each and every element of independent claim 1 and 13.

Amended independent claim 1 is directed to a method for tracing an instrumented program. More specifically, amended independent claim 1 recites, in part, obtaining an original instruction associated with the probe using a look-up table comprising information related to the *original instruction*. In contrast, Tamches only teaches the use of a hash table to find the address of the *offending instruction*, which refers to the *trap instruction* previously spliced into the code. *See* Tamches, pg. 66 (describing how the effect of the trap instruction is undone). In other words, the

hash table of Tamches only includes a reference to the trap instruction. However, there is no disclosure of a hash table that includes a reference to the *overwritten instruction* (i.e., original instruction). See Tamches, pg. 66 (discussing how the existing code is overwritten with a splice). In view of this, it is clear that the hash table including a reference to the *trap instruction* of Tamches is not equivalent to the look-up table containing a reference to the *original instruction* as recited in amended independent claim 1.

Moreover, claim 1 recites, in part, loading the original instruction into a scratch space, which is allocated on a *per-thread* basis. In contrast, Tamches only discloses that a single code patch and a single springboard, if necessary, are allocated when splicing an instruction. See Tamches, pgs. 55, 61 (describing the dangerous race condition created). In other words, all threads branched by the instruction will be directed to the same code patch (or to the same springboard). Further, Tamches discloses a “safer approach” where a counter reflects the *number* of threads currently in the same code patch. See Tamches, pg. 61. Thus, Tamches discloses that multiple threads may exist in the same code patch simultaneously. However, there is no disclosure of a scratch space allocated on a *per-thread* basis. In view of this, it is clear that splicing allocating a single code patch of Tamches is not equivalent to the scratch space allocated on a per-thread basis as recited in amended independent claim 1.

In view of the above, Tamches fails to disclose all the limitations of independent claim 1. In addition, amended independent claim 13 includes at least the same patentable subject matter as amended claim 1 and, thus, is patentable as well. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicants believe this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/346001).

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Respectfully submitted,

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